CLAIMS

What is claimed is:

1. A semiconductor device, comprising:

a first semiconductor package that includes a first semiconductor chip;

a first protruding electrode bonded to the first semiconductor package; and

a second semiconductor package that includes a second semiconductor chip, the second semiconductor package being mounted on the first semiconductor package via a second protruding electrode, the second protruding electrode having a melting point which is higher than a melting point of the first protruding electrode.

2. The semiconductor device according to Claim 1, wherein:

the first semiconductor package further includes a first carrier substrate on which the first semiconductor chip is mounted, and

the second semiconductor package further includes a second carrier substrate that is mounted on the first carrier substrate via the second protruding electrode so as to lay the second carrier substrate on the first semiconductor chip.

3. The semiconductor device according to Claim 2, wherein:

the first semiconductor package further includes a ball grid array package having the first semiconductor chip that is flip-chip mounted on the first carrier substrate, and

the second semiconductor package further includes any one of a ball grid array package and a chip size package having the second semiconductor chip that is mounted and sealed by means of molding on the second carrier substrate.

4. A semiconductor device, comprising:

a first carrier substrate;

a first protruding electrode bonded to the first carrier substrate;

a second carrier substrate that is mounted on the first carrier substrate via a second protruding electrode, the second protruding electrode having a melting point that is higher than a melting point of the first protruding electrode;

a first semiconductor chip that is mounted on the first carrier substrate via a third protruding electrode, the third protruding electrode having a melting point that is higher than the melting point of the second protruding electrode; and

a second semiconductor chip that is mounted on the second carrier substrate.

5. An electronic device, comprising:

a first package that includes a first electronic part;

a first protruding electrode bonded to the first package; and

a second package that includes a second electronic part, the second package being mounted on the first package via a second protruding electrode, the second protruding electrode having a melting point that is higher than a melting point of the first protruding electrode.

6. An electronic device, comprising:

a first carrier substrate;

a first protruding electrode bonded to the first carrier substrate;

a second carrier substrate that is mounted on the first carrier substrate via a second protruding electrode, the second protruding electrode having a melting point that is higher than a melting point of the first protruding electrode;

a first electronic part that is mounted on the first carrier substrate via a third protruding electrode, the third protruding electrode having a melting point that is higher than the melting point of the second protruding electrode; and

a second electronic part that is mounted on the second carrier substrate.

7. An electronic apparatus, comprising:

a first semiconductor package that includes a first semiconductor chip;

a first protruding electrode that is bonded to the first semiconductor package;

a second semiconductor package that includes a second semiconductor chip, the second semiconductor package being mounted on the first semiconductor package via a second protruding electrode, the second protruding electrode having a melting point that is higher than a melting point of the first protruding electrode; and

a mother substrate on which the first semiconductor package is mounted via the first protruding electrode.

8. An electronic apparatus, comprising:

a first carrier substrate;

a first protruding electrode that is bonded to the first carrier substrate;

a second carrier substrate that is mounted on the first carrier substrate via a second protruding electrode, the second protruding electrode having a melting point that is higher than a melting point of the first protruding electrode;

a first semiconductor chip that is mounted on the first carrier substrate via a third protruding electrode, the third protruding electrode having a melting point that is higher than the melting point of the second protruding electrode;

a second semiconductor chip that is mounted on the second carrier substrate; and

a mother substrate on which the first carrier substrate is mounted via the first protruding electrode.

9. A method for manufacturing a semiconductor device, comprising:

providing a first protruding electrode for a first semiconductor package;

mounting the first semiconductor package on a second semiconductor package via the first protruding electrode; and

providing a second protruding electrode for the second semiconductor package, the second protruding electrode having a melting point that is lower than a melting point of the first protruding electrode.

10. A method for manufacturing a semiconductor device, comprising:

providing a third protruding electrode for a first semiconductor chip;

mounting the first semiconductor chip on a first carrier substrate via the third protruding electrode;

mounting a second semiconductor chip on a second carrier substrate;

providing a second protruding electrode for the second carrier substrate, the second protruding electrode having a melting point that is lower than a melting point of the third protruding electrode;

mounting the second carrier substrate that includes the second semiconductor chip on the first carrier substrate via the second protruding electrode; and

providing a first protruding electrode for the first carrier substrate, the first protruding electrode having a melting point that is lower than the melting point of the second protruding electrode.

11. A method for manufacturing an electronic device, comprising:

providing a second protruding electrode for a first package that includes a first electronic part;

mounting the first package on a second package that includes a second electronic part via the second protruding electrode; and

providing a first protruding electrode for the second package, the first protruding electrode having a melting point that is lower than a melting point of the second protruding electrode.

12. A method for manufacturing an electronic device, comprising:

providing a third protruding electrode to a first electronic part;

mounting the first electronic part on a first carrier substrate via the third protruding electrode;

mounting a second electronic part on a second carrier substrate;

providing a second protruding electrode for the second carrier substrate, the second protruding electrode having a melting point that is lower than a melting point of the third protruding electrode;

mounting the second carrier substrate that includes the second electronic part on the first carrier substrate via the second protruding electrode; and

providing a first protruding electrode for the first carrier substrate, the first protruding electrode having a melting point that is lower than a melting point of the second protruding electrode.